M. Jodi Rell
Governor

WINTER STORM UPDATE

Thursday December 8, 2005 – 3:30 PM

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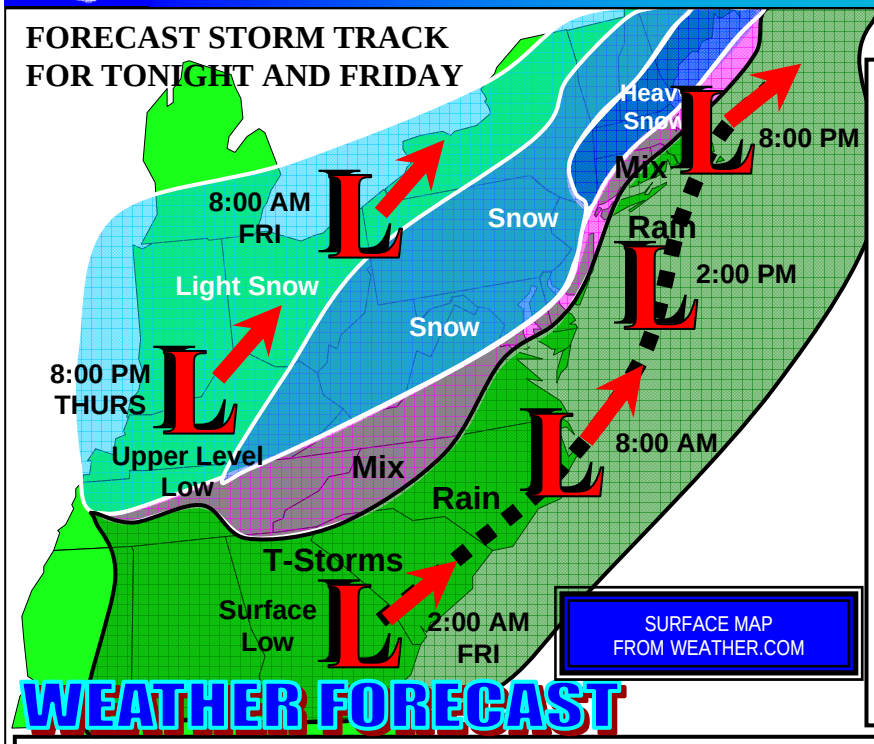
DEPARTMENT OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY

James M. Thomas, Commissioner
Wayne Sandford, Deputy Commissioner

FORECAST STORM TRACK FOR TONIGHT AND FRIDAY



WATCHES AND WARNINGS

Heavy Snow Warning

All of Litchfield County
Northern New Haven and
Northern Fairfield Counties

Winter Storm Warning

Hartford, Tolland and
Windham Counties

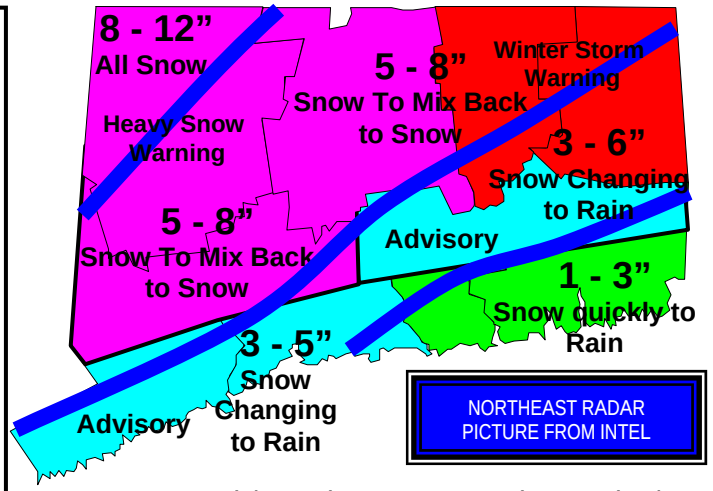
Advisory

Southern Half of Fairfield, New Haven
Northern Middlesex and New London
Counties

Coastal Flood Warning

No Coastal Warnings In Effect

SNOWFALL FORECAST FOR TONIGHT & FRIDAY



COASTAL TIDES (NGVD)	High Tide	Time	Low Tide	Time	Flood Stage
Bridgeport	3.90 Ft	5:29am	-2.70	11:55am	7.0 Feet
	3.50 Ft	5:58pm	-2.90	12:15am (Sat)	
New London	1.70 Ft	3:42am	-0.90	10:15am	5.0 Feet
	1.40 Ft	4:03pm	-1.00	10:29pm (Fri)	

STORM TRACK FORECAST... An upper level low pressure system in the Ohio Valley is forecast to move Northeast overnight as a surface low forms along the Southeast U.S. coastline overnight. The surface low will intensify rapidly as it moves very quickly up the East coast and over Cap Cod Friday evening. As the low intensifies it will pull in moisture and warmer air from the Atlantic Ocean which is expected to change the snow over to rain along the coast on Friday. As the low moves east of Cap Cod, the precipitation may change back to snow at the coast for a few hours before ending.

CONNECTICUT FORECAST...NWS Issues Warnings and Advisories for most of Connecticut...
Friday Morning Forecast...At the Southeast Coast...Light Snow developing between 5:00 AM – 7:00 AM. Snow quickly changing to rain near the coast, and changing over in the New Haven/Norwich area a few hours later. Temperatures rising into the upper 30's. In Central Connecticut...Light snow developing from West to East between 6:00 AM – 8:00 AM. Snowfall becoming steady and heavy at times (1 - 3"/hour) for a few hours between 9:00 AM and 11:00 AM. Snow may then mix with or change to rain for a few hours around noontime. Temperatures rising into the mid 30's. In the Northwest Hills... Light Snow beginning between 4:00 AM – 7:00 AM and becoming moderate to heavy at times from 8:00 AM – 2:00 PM with no changeover expected. Temperatures holding in the upper 20's.

Friday Afternoon...Rain at the coast changing briefly back to snow. Snow then ending quickly in Western CT by 2:00 PM, Central CT by 4:00 PM and Eastern CT by 6:00 PM. A period of gusty northwest winds of 30 – 45 mph can be expected Friday afternoon especially along the Southeast Coast. Total snowfall amounts are expected to range from 1 – 3 inches at the southeast coast up to 5 – 8 inches in the Hartford Area and 8 – 12 inches in the Northwest Hills. ANY CHANGE IN THE TRACK OF THIS STORM WILL DRAMATICALLY CHANGE THE SNOWFALL. No significant coastal flooding or icing is expected with this storm. Another update will be issued by Homeland Security at 8:30 AM Friday morning or sooner if the forecast changes.

Introduction

SKIP INTRO

IN AN EFFORT TO BETTER COORDINATE THE RESPONSE TO WINTER STORMS, SEVERE WEATHER AND OTHER WEATHER EVENTS THAT MIGHT AFFECT LARGE AREAS OF CONNECTICUT, HOMELAND SECURITY IS GOING TO ISSUE TECHNICAL DISCUSSIONS WITHIN IT'S WEATHER UPDATES IN ADVANCE OF APPROACHING STORMS ON A TRIAL BASIS. THESE TECHNICAL DISCUSSIONS ARE INTENDED TO PROVIDE THE USER WITH MORE DETAIL AND ANALYSIS OF APPROACHING STORMS. THE FOLLOWING IS AN EXPLANATION OF THE THREE MOST COMMONLY USED COMPUTER MODELS FOR PREDICTING WEATHER.

THE ETA (NUMERICAL) MODEL:

THE ETA IS A SHORT RANGE 72 HOUR FORECAST MODEL. THE ETA SHOWS THE TRACKS OF LOWS AND HIGHS AND THEIR ASSOCIATED WARM AND COLD FRONTS. THE ETA IS SOMETIMES KNOWN AS THE "WET MODEL" BECAUSE THE ETA TENDS TO OVER-ESTIMATE THE AMOUNT OF RAIN OR SNOW FROM AN APPROACHING STORM.

THE GFS (GLOBAL FORECAST SYSTEMS)

THE GFS IS ALSO A SHORT RANGE 72 HOUR FORECAST MODEL. THE GFS ALSO SHOWS THE TRACKS OF LOWS AND HIGHS AND THEIR ASSOCIATED WARM AND COLD FRONTS. THE GFS IS SOMETIMES CALLED THE "DRY MODEL" BECAUSE THE GFS TENDS TO UNDER-ESTIMATE THE AMOUNT OF RAIN OR SNOW FROM AN APPROACHING STORM.

THE MRF (MEDIUM RANGE FORECAST) MODEL

THE MRF IS A MEDIUM RANGE 10 DAY FORECAST MODEL. THE MRF IS THE MODEL MOST COMMONLY USED TO PREDICT STORMS THAT ARE BETWEEN 4 – 10 DAYS AWAY FROM CONNECTICUT. THE MRF IS ALSO SOMETIMES A "WET MODEL". IT WILL SHOW A STORM SYSTEM BUT WILL NOT SHOW ITS REAL INTENSITY MORE THAN 4 DAYS IN ADVANCE. THIS IS BECAUSE A NUMERICAL BUFFER SYSTEM IS BUILT INTO THE MRF MODEL. THIS NUMERICAL BUFFER IS DESIGNED TO SMOOTH OUT ERRORS IN THE MODEL AND THIS HAS THE EFFECT OF WATERING DOWN THE INTENSITY OF STORMS THAT ARE MORE THAN 4 DAYS AWAY.

ALL THREE MODELS ALSO SUFFER FROM THE FOLLOWING FORECAST DEFICIENCIES:

1) THEY (ETA, GFS, MRF) TEND TO UNDER-ESTIMATE THE FOREWARD SPEED OF STORMS. THUS, MOST STORMS MOVE FASTER THAN THE FORECAST AND NORMALLY END SOONER THAN EXPECTED.

2) THEY TEND TO OVER-ESTIMATE THE DAMMING OF COLD AIR IN NEW ENGLAND. THUS, STORMS TEND TO CHANGE TO RAIN SOONER THAN EXPECTED.

3) THEY ALL USE SIMILAR DATA AT THE START OF THEIR FORECAST RUNS. ANY ERRORS IN THE STARTING DATA CAN BE MAGNIFIED BY THE COMPUTERS WHEN THEY MAKE THEIR FORECASTS.

4) THEY CANNOT TELL YOU EXACTLY WHERE A SEVERE THUNDERSTORM WILL OCCUR. THEY CAN ONLY TELL YOU WHAT AREA'S ARE PRONE TO SEVERE THUNDERSTORMS. THIS ALSO APPLIES TO TORNADOES, HAIL, HIGH WINDS AND FLOODING.

WHEN THE MODELS CANNOT DETERMINE THE PRECISE FORECAST, IT IS UP TO THE FORECASTER TO USE HIS OR HER JUDGEMENT. EVERY FORECASTER HAS HIS OR HER OWN FAVORITE MODEL. THIS EXPLAINS WHY YOU SEE DIFFERENT FORECASTS FROM EACH NWS OFFICE AND FROM THE BROADCAST MEDIA FOR THE SAME STORM. I TRY TO INCORPORATE ALL THREE MODELS INTO MY FORECASTS TO REDUCE THE BIAS OF ANY ONE MODEL. HOWEVER I DO TEND TO SLIGHTLY FAVOR THE ETA AND MRF MODELS IN MY FORECASTS. THESE MODELS PROVIDE A MORE CONSERVATIVE (WORST CASE) FORECAST THAN THE GFS MODEL. THE MORE CONSERVATIVE FORECASTS ARE GOOD FOR PLANNING FOR THE WORST CASE SCENARIO. MY FORECASTING TECHNIQUE IS KNOWN AS CONSENSUS FORECASTING (USING SEVERAL MODELS AND CONSULTING THE NWS TO GET A CONSENSUS). THIS IS TYPICALLY MORE ACCURATE THAN FORECASTS BASED ON A SINGLE MODEL. HOWEVER I AM NOT GOING TO BE PERFECT.

THE TECHNICAL DISCUSSION IS PROVIDED SO YOU CAN SEE WHAT I SEE WHEN I PREPARE A FORECAST. THIS ADDITIONAL INSITE MAY HELP THE DECISION MAKING PROCESS DURING THE STORM.

Technical Discussion

Not available at this time.